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(FILE 'HOME' ENTERED AT 09:38:14 ON 16 AUG 2007)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 09:38:27 ON 16
AUG 2007

L1 40711 S URINE AND (MASS SPECTRO?)
L2 1224 S L1 AND ELECTROPHORESIS?
L3 74 S L2 AND DIGEST?
L4 38 S L3 AND PEPTIDE?
L5 28 DUPLICATE REMOVE L4 (10 DUPLICATES REMOVED)
L6 17 S L5 AND PD<2004

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AB Provided are mammalian secreted and non-secreted diabetes mediating proteins, including protective and deleterious diabetes -mediating proteins, as well as polynucleotides encoding same, drug screening methods for identifying a test compound capable of altering the expression of a diabetes-mediating protein, and methods of preventing or ameliorating diabetes by administering a compound capable of altering the expression of a diabetes-mediating protein. The proteins were identified by monitoring IL-1 β induced protein changes in diabetes prone mammalian islets of Langerhans using two-dimensional gel electrophoresis. Protein spots that significantly changed expression levels after exposure to IL-1 β were cut out of the gels and subjected to MALDI mass spectrometry. Eighty-two significantly changed protein spots were detected. Pos. identification was obtained for a total of 45 different proteins from 51 of the 82 spots.

ST mammalian diabetes protein diagnosis therapy; interleukin 1beta diabetes protein expression; electrophoresis mass spectrometry diabetes protein

IT Progesterone receptors
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (25-Dx; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Keratins
 RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (8; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Heterogeneous nuclear ribonucleoproteins
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (A2/B1; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Proteins
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (ERP 29 (endoplasmic reticulum protein 29) precursor; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Proteins
 RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (GRP78 (glucose-regulated protein, 78 kDa); mammalian diabetes -mediating proteins identification for diagnosis and therapy)

IT Transcription factors
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (IE-1 (immediate-early, 1), cytomegalovirus; mammalian diabetes -mediating proteins identification for diagnosis and therapy)

IT Pancreatic islet of Langerhans
 (IL-1 β -induced protein changes in diabetes-prone; mammalian diabetes-mediating proteins identification for

diagnosis and therapy)

IT Ribosomal proteins
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (L11, 60; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Heterogeneous nuclear ribonucleoproteins
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (M4, deletion mutant; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Proteins
 RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (TOAD 64; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Anion channel
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (VDAC (voltage-dependent anion channel); mammalian diabetes -mediating proteins identification for diagnosis and therapy)

IT Proteins
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (amyloid β - peptide binding; mammalian diabetes -mediating proteins identification for diagnosis and therapy)

IT Pancreas
 (anal. of tissue sample of; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Animal tissue
 Lymph
 Saliva
 (anal. of; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Chemical compounds
 (binding to diabetes-mediating proteins; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Nucleic acids
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
 (binding to diabetes-mediating proteins; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Proteins
 RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (craniofacial development protein 1; mammalian diabetes -mediating proteins identification for diagnosis and therapy)

IT Proteins
 RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN

(Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(diabetes-mediating; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Translation initiation factors

RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(eIF-4A, NUK like; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Proteins

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(endoplasmic, precursor; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Polynucleotides

RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(for diabetes-mediating proteins; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Agglutinins and Lectins

RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(galectin-3; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Autoimmune disease

(insulin-dependent diabetes mellitus; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Diabetes mellitus

(insulin-dependent; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Antidiabetic agents

Blood analysis

Diabetes mellitus

Diagnosis

Drug screening

Human

Immunoassay

Mammalia

Nucleic acid hybridization

Susceptibility (genetic)

Test kits

Urine analysis

(mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Calreticulin

RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Antibodies and Immunoglobulins

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal, to diabetes-mediating proteins; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Gene expression

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(of diabetes-mediating proteins; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Laser ionization mass spectrometry

(photodesorption, matrix-assisted; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Laser desorption mass spectrometry

(photoionization, matrix-assisted; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Gel electrophoresis

(polyacrylamide; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Interleukin 1 β

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(protein changes in diabetes-prone islets of Langerhans in response to; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Proteins

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(secretagogin; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Antibodies and Immunoglobulins

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(to diabetes-mediating proteins; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Gel electrophoresis

(two-dimensional; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT Tubulins

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(β -, 5 chain; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 9001-59-6P, Pyruvate kinase

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(M2 isoenzyme; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 37318-49-3P, Protein disulfide isomerase

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(P5 precursor; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 9001-15-4P
 RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (b; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 9000-97-9P, Aspartate aminotransferase
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (cytosolic and mitochondrial precursor; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 9001-58-5P, Isocitrate dehydrogenase
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (isoform 2, mitochondrial; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 99676-46-7P, Kexin
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (isoforms 1 and 2; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 9001-05-2P, Catalase 9001-40-5P, Glucose-6-phosphate dehydrogenase
 RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 9001-50-7P, Glyceraldehyde-3-phosphate dehydrogenase 9023-62-5P, Glutathione synthetase 9026-42-0P, Pyridoxal kinase 9027-80-9P, Adenosine phosphoribosyltransferase 9031-72-5P, Alcohol dehydrogenase 9032-03-5P, 5-Aminoimidazole-4-carboxamide ribonucleotide formyltransferase 9037-67-6P, β -Alanine oxoglutarate aminotransferase 9079-67-8P, NADH dehydrogenase 37278-21-0P, UMP-CMP kinase 89700-37-8P, Carbonyl reductase
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 9001-64-3P, Malate dehydrogenase 9024-25-3P, Aconitate hydratase
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (mitochondrial precursor; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 9028-40-4P, L-3-Hydroxyacyl-CoA dehydrogenase 9037-14-3P, 5-Aminolevulinic synthase
 RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (precursor; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 9000-83-3P, ATPase

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(proton-transporting, lysosomal (vascular protein pump) β polypeptide 56/58; mammalian diabetes-mediating proteins identification for diagnosis and therapy)

IT 37205-63-3P, ATP synthase

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(α chain precursor, mitochondrial; mammalian diabetes -mediating proteins identification for diagnosis and therapy)